

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-10. (Canceled)

11. (Currently Amended) Alkali fuel cell comprising a solid stack consisting of
a first electrode,
a hydroxide ion conducting solid membrane, and
a second electrode, wherein

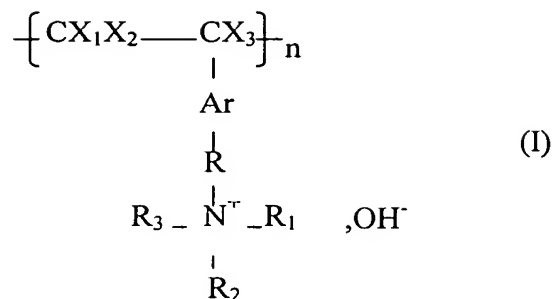
~~wherein, each of the first electrode and the second electrode comprises~~
comprise an active layer that is in contact with the solid membrane,
the material forming the active layer of each of the first electrode and the
second electrode comprises at least a catalytic element, an electronic conductive element and
an element conducting hydroxide ions,

the element conducting hydroxide ions of the active layer of each of the first
electrode and the second electrode ~~electrodes~~ being a polymer having vinylaromatic units
comprising a quaternary ammonium function and hydroxide counter-ions OH^- being
associated with the quaternary ammonium functions of the polymer, and

the fuel cell not comprising any alkaline liquid.

12. (Previously Presented) Cell according to claim 11, wherein the element
conducting hydroxide ions is a polymer having styrenic units comprising a quaternary
ammonium function and hydroxide counter-ions OH^- are associated with the quaternary
ammonium functions of the polymer.

13. (Currently Amended) Cell according to claim 12, wherein the element
conducting hydroxide ions is a polymer having the following general formula (I):



in which:

X_1 and X_2 are both selected from the group consisting of hydrogen, chlorine and fluorine,

X_3 is selected from the group consisting of hydrogen, chlorine, fluorine, an alkyl and a perfluorinated alkyl,

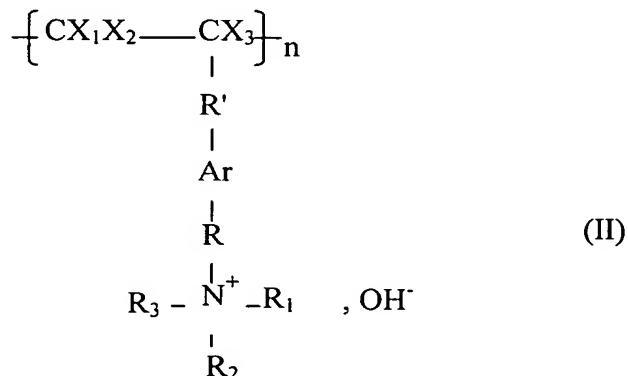
Ar represents a ~~possibly~~-substituted or unsubstituted, carbonated aromatic cycle,

R is selected from the group consisting of $-\text{CH}_2-$ and $-(\text{CF}_2)_{n1}-\text{CH}_2-$, with $n1$ comprised between 1 and 10, the $-\text{CH}_2-$ alkyl group of R being bonded by a simple covalent bond to the nitrogen of the quaternary ammonium function,

R_1 , R_2 and R_3 are respectively identical or different alkyl, aryl or alkyl-aryl groups,

and n is an integer.

14. (Currently Amended) Cell according to claim 12, wherein the element conducting hydroxide ions is a polymer having the following general formula (II):



in which:

X_1 and X_2 are both selected from the group consisting of hydrogen, chlorine and fluorine,

X_3 is selected from the group consisting of hydrogen, chlorine, fluorine, an alkyl and a perfluorinated alkyl,

Ar represents a ~~possibly~~-substituted or unsubstituted, carbonated aromatic cycle,

R is selected from the group consisting of $-CH_2-$ or $-(CF_2)_{n1}-CH_2-$ with $n1$ comprised between 1 and 10, the $-CH_2-$ alkyl group being bonded by a simple covalent bond to the nitrogen of the quaternary ammonium,

R' is selected from the group consisting of oxygen, the $-O-CF_2$ group, and $-(CF_2)_{n2}-$ with $n2$ comprised between 1 and 10,

R_1 , R_2 and R_3 are respectively identical or different alkyl, aryl or alkyl-aryl groups, n is an integer.

15. (Previously Presented) Cell according to claim 11, wherein the electronic conductive element is selected from the group consisting of carbon, nickel, silver, gold and platinum.

16. (Previously Presented) Cell according to claim 11, wherein the catalytic element is selected from the group consisting of platinum and silver.

17. (Currently Amended) Cell according to claim 11, wherein the catalytic element ~~is formed by~~ comprises the electronic conductive element.

18. (Previously Presented) Cell according to claim 11, wherein the electronic conductive element being the support of the catalytic element and of the element conducting hydroxide ions, it is in the form of a fabric, a foam, a powder or a grid.

19. (Previously Presented) Cell according to claim 11, wherein the ionic conductivity of the solid membrane conducting hydroxide ions is greater than or equal to 0.005 S/cm.

20. (Currently Amended) Cell according to claim 11, wherein each of the first electrode and the second electrode ~~comprises~~ comprise a diffusion layer so that the active layer is arranged between the diffusion layer and the solid membrane.